IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CORDIS CORPORATION, Plaintiff, v. ADVANCED CARDIOVASCULAR SYSTEMS, INC., MEDTRONIC AVE, INC., BOSTON SCIENTIFIC CORPORATION, and SCIMED and SCIMED LIFE SYSTEMS, INC., Defendants.	)	Civil Action No. 97-550-SLR (Consolidated)

MEDTRONIC AVE, INC.'S OBJECTIONS AND RESPONSES TO PLAINTIFF CORDIS CORPORATION'S THIRD SET OF INTERROGATORIES NOS. 16-27

Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure, Defendant Medtronic AVE, Inc. ("Medtronic AVE") serves its objections and responses to Plaintiff's Third Set of Interrogatories to Medtronic AVE Nos. 16-27.

Medtronic AVE objects to each interrogatory on all of the grounds set forth in its General Objections and Objections to Defendants' Definitions and Instructions and incorporates those objections into its specific objections to each interrogatory as if set forth in full therein. By answering Defendants' interrogatories Medtronic AVE does not waive any objections it may have that the information requested is not relevant or inadmissible at trial in this action, and expressly reserves the right to assert those objections.

The following responses are based upon Medtronic AVE's current knowledge, information and belief after making reasonable inquiry. Medtronic AVE expressly

reserves the right to supplement its responses to Defendants' interrogatories as additional evidence pertinent to this action becomes available.

GENERAL OBJECTIONS

1. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they attempt to impose obligations beyond those imposed by the Federal Rules of Civil Procedure or by the Local Rules of the U.S. District Court for the District of Delaware and may contravene orders of the Court.

2. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they call for information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery. Inadvertent disclosure of such information shall not constitute a waiver of any privilege, or of any other basis for objecting to discovery, or of the right of Medtronic AVE to object to the use, and seek the return, of any such information that may be inadvertently disclosed.

3. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they request information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

4. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they seek discovery of information that is available through other means that are less burdensome or more appropriate than through these interrogatories, such as through expert witnesses.

5. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they seek to compel Medtronic AVE to disclose trade secrets or any other proprietary or confidential information regarding Medtronic AVE or its products, including information not relevant to this action, including new products under development and the design, development, fabrication and operation of tooling and manufacturing equipment used to make AVE products.

6. Medtronic AVE generally objects to Plaintiff's interrogatories as vague, overly broad, oppressive and unduly burdensome.

7. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they incorporate, and seek responses based on, erroneous statements of pertinent law, and any response is not to be construed as agreement with Plaintiff's erroneous statements of pertinent law.

8. Medtronic AVE generally objects to Plaintiff's document requests to the extent that they are overly broad, oppressive and unduly burdensome, and contrary to the Court's ruling in the November 10, 1999 conference call regarding discovery into products under development.

9. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they seek information that is not relevant to the subject matter of this litigation and that is not reasonably calculated to lead to the discovery of admissible evidence.

10. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they exceed the number permitted under Rule 26 of the Federal Rules of Civil Procedure and Rule 26 of the Local Rules of the U.S. District Court of the District of Delaware.

11. Medtronic AVE generally objects to Plaintiff's interrogatories on the grounds that they are not limited to any period in time.

OBJECTIONS TO PLAINTIFF'S DEFINITIONS AND INSTRUCTIONS

1. Medtronic AVE objects to Plaintiff's definition number 4 and instruction number 4 to the extent that it seeks to compel Medtronic AVE to produce information that is not within the possession, custody, or control of Medtronic AVE.

2. Medtronic AVE objects to Plaintiff's instruction number 5 to the extent that it seeks to require Medtronic AVE to produce an updated privilege log at this time. A supplemental privilege log will be provided in due course upon agreement of counsel.

OBJECTIONS AND RESPONSES

INTERROGATORY NO. 16:

State whether AVE contends that the AVE Stents do not infringe any of the asserted claims of the '762, '417, '984 and/or '332 patents or the '762 Reexamination Certificate and, if so: (i) state why the AVE Stents do not infringe, (ii) identify each document which AVE contends supports its contention; and (iii) identify each person who has knowledge supporting such contention.

Objections to Interrogatory No. 16:

Medtronic AVE objects to this interrogatory as being overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence to the extent it purports to require identification of "each document" and "each person" with knowledge of the event or reference.

Medtronic AVE further objects to this interrogatory as being vague, confusing, and misleading in that it appears to rest on a misunderstanding of the law on infringement (*see, e.g.*, 35 U.S.C. § 271), and it is unclear in whether it is asking for every possible reason why the AVE Stents do not infringe.

Medtronic AVE further objects to this interrogatory to the extent it calls for noninfringement contentions with respect to products under development.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Response to Interrogatory No. 16:

Subject to and without waiving its general and specific objections, Medtronic AVE presently contends that none of the AVE Stents infringe any of the claims of the '762, '417, '984, and '332 patents, and the '762 Reexamination Certificate asserted by Cordis.

In general, Medtronic AVE believes that many of the persons identified in Medtronic AVE's answer to Cordis's interrogatory number 1 (and supplemental responses thereto), as well as those Medtronic AVE employees, former employees, and experts who were deposed by Cordis, will have knowledge relevant to each of the noninfringement contentions detailed below, including but not limited to Matthew Birdsall. Medtronic AVE has produced or will produce all documents in its custody or control that support each of the noninfringement contentions detailed below. At this juncture, the burden of deriving or ascertaining all of the Medtronic AVE, Cordis, and EGP produced documents that support each noninfringement contention is substantially the same for Cordis as Medtronic AVE. Medtronic AVE expects that particular documents supporting each individual contention will be identified during the course of expert discovery. Other documents that support all of Medtronic AVE's noninfringement arguments are the '665 (which includes the '665 reexamination certificate), '762 (which includes the '762 reexamination certificate), '417, '984, and '332 patents and their corresponding U.S. and foreign counterpart prosecution histories (which includes the reexamination and interference proceedings).

Certain of Medtronic AVE's noninfringement contentions were made known to Cordis in Medtronic AVE's motion for summary judgment of noninfringement filed in this case (and all supporting papers, corresponding responses, corresponding motions for reargument, etc.), including the lack of "slots formed therein," "connector member," and "coplanar." All of the contentions and reasons set forth in these papers are incorporated by reference herein. In addition to those contentions, Medtronic AVE also contends that it does not infringe the '762 (including reexamination certificate), '417, '984 and '332 patents because, *inter alia*, the AVE Stents do not contain any of the following limitations or equivalents thereof contained in the claims asserted against Medtronic AVE (most of which were defined in claim charts Medtronic AVE provided to Cordis in November of 1999, which are incorporated herein by reference):

A. **Limitations, and Derivations Thereof, Common to the '762(which includes the '762 reexamination certificate), '417, and '984 Patents:**

(1) No "thin-walled tubular member [or tubular prosthesis]." The AVE Stents do not resemble a thin-walled tube. Besides those identified above, Julio Palmaz, Richard Schatz, Ben Tobor, John Kula, and Craig Bonsignore each have knowledge related to this defense. Among the documents supporting this defense are those that were attached as exhibits to Medtronic AVE's motion for summary judgment of noninfringement, and those marked at the deposition of Craig Bonsignore on June 11, 1999.

(2) No "wall surface." Besides those identified above, Julio Palmaz, Richard Schatz, Ben Tobor, John Kula, and Craig Bonsignore each have knowledge related to this defense. Among the documents supporting this defense are those that were attached as

exhibits to Medtronic AVE's motion for summary judgment of noninfringement, and those marked at the deposition of Craig Bonsignore on June 11, 1999.

(3) No "substantially uniform thickness." The AVE Stents do not have a substantially uniform thickness" as the phrase is used in the patents-in-suit.

(4) No "slots." The AVE Stents have no elongate openings bound on all sides.

(5) No "a" "second diameter" which "is variable and dependent." The AVE Stents cannot meet these limitations in light of the arguments made during the '762 reexamination proceeding.

B. Limitations, and Derivations Thereof, Common to the '762 Patent (which includes the '762 reexamination certificate):

(1) No capability of being intraluminally delivered in a "coronary artery." Not all of the AVE Stents are intended to be used in the coronary arteries. (This limitation is also present in the '332 patent).

(2) No "ring portion," or "peak" or "valley" portions within the meaning of the '762 patent.

(3) No "slots defined by a pair of spaced apart elongate members."

C. Limitations, and Derivations Thereof, Common to the '417 and '984 Patents:

(1) No plurality of "tubular members" or "grafts" or "prostheses." The AVE Stents do not have a plurality of elongated, cylindrical, hollow members.

(2) No "flexible" connector member. The laser fused points of the AVE Stents are not flexible. Other than those described above, persons having knowledge of this defense include Craig Bonsignore, John Kula, and Julio Palmaz.

(3) No connector member to "flexibly connect." The laser fused points of the AVE Stents rigidly fuse adjacent elements. Other than those described above, persons having knowledge of this defense include Craig Bonsignore, John Kula, and Julio Palmaz.

D. Limitations, and Derivations Thereof, Common to the '984 Patent:

(1) No "only one" or "single" connector member. There are some AVE Stents that have elements laser fused at more than one point (Note that this noninfringement position also applies to the claims of the '332 Patent requiring "a," "first," and "second" connectors).

(2) No connector member in a "substantially parallel relationship" with adjacent tubular members. The laser fused points of the AVE Stents are not substantially parallel with the longitudinal axis of adjacent tubular members.

E. Limitations, and Derivations Thereof, Common to the '332 Patent:

(1) No "segments" having a "generally tubular shape." The AVE Stents are composed of sinusoidal shaped elements.

(2) No "openings" in each segment, nor "openings" forming a series of "alternating open and closed portions" in each of the ends of the sinusoidal shaped elements of AVE's stents.

(3) No "connector." See Medtronic AVE summary judgment motion for noninfringement and accompanying papers, as it relates to "connector member" limitations.

(4) No "closed portion." The AVE Stents have no portions bound on all sides.

(5) No stent "whereby each of the segments may be displaced at an angle with respect to the longitudinal axis of an adjacent segment when the stent is delivered through a curved portion of the access or coronary arteries." The AVE Stents are composed of sinusoidal shaped elements that are fused with each other rigidly at laser fused points, which themselves are rigid. Other than those described above, persons having knowledge of this defense include Craig Bonsignore, John Kula, and Julio Palmaz.

(6) No segments that may "articulate" about "first and second connectors." The laser fused points of the AVE Stents are rigid and rigidly fuse together adjacent elements. Other than those described above, persons having knowledge of this defense include Craig Bonsignore, John Kula, and Julio Palmaz.

(7) No "cylindrical element formed from a plurality of struts so as to define open and closed portions." See Medtronic AVE claim chart of November, 1999.

(8) The asserted claims of the '332 patent all require limitations (or minor variations thereof) that have been described above in conjunction with the '762, '417, and '984 patents as missing from the AVE Stents.

With respect to most of the method claims of the '762 and '417 patents, no one entity performs all of the steps of the individual claims, and therefore there can be no direct, contributory, or inducement of, infringement. In addition, for all of the claims, the

"AVE Stents" in and of themselves cannot legally infringe any patent, let alone the '762, '417, '984, and '332 patents.

Additional bases for the noninfringement of the claims of the '762 (which includes the '762 Reexamination Certificate), '417, '984, and/or '332 patents have been or will be made known to Cordis during discovery.

Medtronic AVE expects that further support for the above-referenced defenses, along with additional noninfringement defenses, will be developed upon close of fact discovery and further analysis of the evidence. Medtronic AVE also expects that its position with regard to these defenses and other defenses not specifically discussed above will be further clarified during expert discovery, and expressly reserves the right to modify or supplement the above defenses, and/or rely upon entirely new defenses at trial.

INTERROGATORY NO. 17:

State whether AVE has conducted or caused to be conducted any search or investigation to locate prior art pertinent to the '332 patent and/or the '762 Reexamination certificate and, if so: (i) state when and by whom each search or investigation was made and at whose request; (ii) identify each patent, printed publication or other prior art reference or device which AVE contends is pertinent to the '332 patent and/or the '762 Reexamination Certificate; and (iii) identify all documents prepared by or for AVE concerning such prior art.

Objections to Interrogatory No. 17:

Medtronic AVE objects to this interrogatory as being overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence for seeking information about "each search or investigation," "each patent", and "all documents" concerning prior art for the '762 Reexamination Certificate and/or the '332 patent.

Medtronic AVE further objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Response to Interrogatory No. 17:

Subject to and without waiving its general and specific objections, Medtronic AVE states that, to the best of its current knowledge, information and belief, it has not caused to be conducted searches and/or investigations to locate pertinent prior art specific to the '762 Reexamination Certificate and/or '332 patent prior to the filing of this action, *Cordis v. ACS et al.* (Civil Action No. 97-550-SLR).

All pertinent prior art known to Medtronic AVE has either been produced by Medtronic AVE or will be produced by Medtronic AVE; has been cited during the prosecution of the '762 Reexamination Certificate, or the '762, '417, '984, or '332 patents; or has been identified by Medtronic AVE, Advanced Cardiovascular Systems, Inc., or Boston Scientific Corporation, during discovery. If Medtronic AVE becomes aware of any more pertinent prior art, it will identify such prior art in a timely manner in accordance with 35 U.S.C. § 282.

INTERROGATORY NO. 18:

State whether AVE has ever requested an opinion or report from anyone, including but not limited to outside counsel, regarding either the validity or enforceability of the '332 patent and/or the '762 Reexamination Certificate or the infringement of the '332 patent and/or the '762 Reexamination Certificate by the AVE Stents and, if so,

identify every document concerning such opinions or reports, including but not limited to such opinions, reports and requests.

Objections to Interrogatory No. 18:

Medtronic AVE objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, the deadline for Medtronic AVE to decide whether to rely upon an opinion of counsel defense to willful infringement has not passed, and preparation for trial is not yet complete.

Medtronic AVE further objects to this interrogatory as seeking information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Response to Interrogatory No. 18:

Subject to and without waiving its general and specific objections, Medtronic AVE has requested opinions and/or reports regarding the validity, enforceability, and/or the infringement of the '762 Reexamination Certificate and/or '332 patent. Documents concerning such opinions or reports have either been produced, identified on Medtronic AVE's privilege log, and/or will be included on Medtronic AVE's supplemental privilege log.

INTERROGATORY NO. 19:

State whether AVE contends that any claim of the '332 patent and/or the '762 Reexamination Certificate is invalid, and, if so, state with particularity the basis for such contention, including but not limited to identifying with particularity each event or reference forming in whole or in part the basis for such contention, each person with knowledge of the event or reference, and all documents relating to the event or reference.

Objections to Interrogatory No. 19:

Medtronic AVE objects to this interrogatory as being overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, particularly to the extent it calls for information relating to claims that have not been asserted against Medtronic AVE and purports to require identification of "each event or reference" and "each person" with knowledge of the event or reference and "all documents" relating to it.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Response to Interrogatory No. 19:

Subject to and without waiving its general and specific objections, Medtronic AVE presently contends that the claims of the '762 Reexamination Certificate and '332 patent asserted against Medtronic AVE are invalid for at least the following reasons:

(1) All of the claims of the '762 Reexamination Certificate and '332 patent are invalid for nonjoinder of inventorship. Stewart Windeler is at least a coinventor of these two patents, as he helped Palmaz develop the idea for forming slots in a tube. Those with knowledge of Mr. Windeler's contributions include Julio Palmaz, Stewart Reuter, and Joseph Peters. Others likely having knowledge are identified during the testimonies of Drs. Windeler and Palmaz during the *Windeler v. Palmaz* and *JJIS v. Cook* litigations, and include Dr. Windeler's coworkers and colleagues at the UTHSC from the mid-1980's and employees of Cook Inc. who were in contact with both Palmaz and Windeler in the mid-1980's. Documents related to this contention were made known to Cordis through the present and prior litigations, including the *Windeler v. Palmaz* and *JJIS v. Cook* litigations, and particularly during the testimonies of Drs. Palmaz and Windeler.

(2) All of the claims of the '762 Reexamination Certificate and '332 patent are invalid for nonjoinder of inventorship. Werner Schulz is at least a coinventor of these two patents, as he in the spring of 1983 helped Palmaz develop the idea for forming slots in a tube. Those with knowledge that support Mr. Schulz's contribution include Julio Palmaz, Amalia Palmaz, Joseph Peters, Stanley Carson, and Brian Bates. Documents supporting this contention, all of which were produced by Cordis or EGP, include a May of 1983 letter from Palmaz to Schulz produced by Cordis and EGP, Palmaz's 1980 and 1983 monographs, a chronology prepared by Lisa Wehlend (J051438A), and a timeline

shown during the *Windeler v. Palmaz* trial (*see* Wehlend Exs. 1 and 2 from the 10/21/99 Wehlend depo.).

(3) All of the claims of the '762 Reexamination Certificate and '332 patent are invalid for nonjoinder of inventorship. Stanley Carson is at least a coinventor of these two patents. During the 1979 time period, Dr. Carson gave Palmaz the idea for mounting and delivering a woven wire stent on a balloon catheter intraluminally to the point of a stenosis in an artery. The idea that Carson relayed to Palmaz included expanding the woven wire stent with the balloon so that the woven wire expanded the lumen of the artery. After deflating and removing the balloon, the woven wire stent would remain in place in its expanded condition. Those likely having knowledge of Dr. Carson's contributions were identified during Dr. Carson's deposition in the *JJIS v. Cook* case, and include Julio Palmaz; Stewart Reuter; Amalia Palmaz; Dr. Carson's coworkers and colleagues at the VA in Martinez, CA from the late 1970's and early 1980's; Dr. Carson's coworkers and colleagues at UC Davis, CA from the late 1970's and the early 1980's; Dr. Carson's research colleagues from the late 1970's and the early 1980's; persons working at Hancock and Vascor in the late 1970's and early 1980's; and persons working at Shiley during the late 1970's and early 1980's. Documents relating to Dr. Carson's claims of inventorship include those documents that were attached to Dr. Carson's affidavit from the *JJIS v. Cook* case, and other documents identified during the Carson and Palmaz depositions in the *JJIS v. Cook* and *Cordis v. ACS et al.* (Palmaz only) cases.

(4) The '332 patent is invalid for nonjoinder of inventorship. Cordis engineers, including Anthony Miksza, John Kula, Michael Schuler, and/or Ronald Sickles should have been named at least coinventor(s) of the patents, as they contributed

to the design of the connectors and connected stents claimed in the patents. Additionally, Julio Palmaz should have at least been named a coinventor of the '332 patent. Persons with knowledge related to these contentions, besides those named above, include Richard Schatz, Ben Tobor, and Michael Tatlow. Others likely having knowledge were identified in prior depositions in the *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to these contentions include those identified in various depositions in the *Cook* case and the present case (*see, e.g.*, Kula deposition, Palmaz deposition), and have been produced by Cordis and EGP. Examples include Exs. 130 and 153 from the 10/14/99 and 10/15/99 Palmaz depositions.

(5) All of the claims of the '762 Reexamination Certificate and '332 patent are invalid for violating 35 U.S.C. § 112's best mode requirement. Palmaz and Schatz intentionally failed to disclose to the public that the claimed inventions should be made using an EDM machine. Those having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Stewart Windeler, John Kula, and Richard Bowman. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(6) All of the claims of the '762 Reexamination Certificate and '332 patent are invalid for violating 35 U.S.C. § 112's best mode requirement. Palmaz and Schatz intentionally failed to disclose to the public that the claimed inventions should be electropolished. Those having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Stewart Windeler, John Kula, and Richard Bowman.

Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(7) All of the claims of the '762 Reexamination Certificate and '332 patent are invalid for violating 35 U.S.C. § 112's best mode requirement. Palmaz and Schatz intentionally failed to disclose to the public that the claimed inventions should be annealed. Those having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Stewart Windeler, John Kula, and Richard Bowman. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(8) All of the claims of the '762 Reexamination Certificate and '332 patent are invalid for violating 35 U.S.C. § 112's best mode requirement. Palmaz and Schatz intentionally failed to disclose to the public the dimensions needed for their stents to properly function. Those likely having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Stewart Windeler, John Kula, and Richard Bowman. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(9) All of the claims of the '762 Reexamination Certificate and '332 patent are invalid for violating 35 U.S.C. § 112's best mode requirement. Palmaz and Schatz intentionally failed to disclose to the public the proper dimensions, stent preparation, and/or expansion limits needed to prevent the struts of the stents from twisting too significantly, and the ends of the stent from flaring too significantly. Those likely having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Stewart Windeler, John Kula, Richard Bowman, and Fermin Tio. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(10) All of the claims of the '762 Reexamination Certificate and '332 patent are invalid for violating 35 U.S.C. § 112's enablement requirement. One of ordinary skill in the art would be unable to practice the claimed inventions without undue experimentation due to the difficulty in developing an adequate delivery system to properly deliver the claimed stent/graft/prosthesis. Those likely having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Phillip Romano, Cecil Schenker, John Kula, Anthony Miksza, Michael Schuler, and Ronald Sickles. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(11) All of the claims of the '762 Reexamination Certificate and '332 patent are invalid for violating 35 U.S.C. § 112's enablement requirement. One of ordinary skill in the art would be unable to practice the claimed inventions without undue experimentation due to the difficulty in making the claimed stent/graft/prosthesis. Those likely having knowledge related to this validity defense include Richard Bowman, Julio Palmaz, Richard Schatz, Phillip Romano, Cecil Schenker, John Kula, Anthony Miksza, Michael Schuler, and Ronald Sickles. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case, including the April 20, 1999, Kula deposition.

(12) All of the claims of the '762 Reexamination Certificate are invalid for violating 35 U.S.C. § 112's enablement requirement. One of ordinary skill in the art would be unable to practice the claimed inventions without undue experimentation due to the rigidity of the disclosed stent/graft/prosthesis. Such rigidity would preclude adequate delivery to many vessels of the body, and in particular the coronary arteries. Hence, at a minimum claims 44 through 59 are not enabled due to the limitations contained in those claims related to the coronary artery. Those likely having knowledge related to this validity defense include Julio Palmaz and Richard Schatz. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(13) If Cordis's claim constructions are believed, all of the claims of the '762 Reexamination Certificate are invalid for violating 35 U.S.C. § 112's written description requirement. The definitions of "slots," "ring portions," "peak portions," "valley portions," and "ring portions," proffered by Cordis are not supported by the original disclosure contained in U.S. Appl. No. 923,798, filed November 3, 1986. Those likely having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Joel Siegel, and John Milnamow. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case. Documents of particular interest include the '762 patent, the '762 reexamination certificate, and the '762 patent's file history.

(14) All of the claims of the '762 Reexamination Certificate are invalid for violating 35 U.S.C. § 305's requirement that the scope of a claim cannot be enlarged during a reexamination proceeding. Those likely having knowledge related to this defense include Julio Palmaz, Richard Schatz, Ben Tobor, Joel Siegel, and John Milnamow. Documents related to this defense include those identified at various depositions and trial transcripts in the *Cook, Windeler*, and present case. Documents of particular interest include the '762 patent, the '762 reexamination certificate, and the '762 patent's file history.

(15) All of the claims of the '762 Reexamination Certificate are invalid under 35 U.S.C. § 102 in light of a Julio Palmaz abstract entitled, "Expandable Intraluminal Graft: A Preliminary Study," which was published at least as early as October 1984. The abstract on its face discloses to one of ordinary skill in the art all the limitations of all of the claims of the '762 Reexamination Certificate. Persons having knowledge related to

this defense include John Milnamow, Julio Palmaz, Joel Siegel, and Ben Tobor. Relevant documents include the abstract, the '762 patent, and the '762 Reexamination Certificate.

(16) All of the claims of the '762 Reexamination Certificate are invalid under 35 U.S.C. § 102 in light of a series of public disclosures, public uses, and/or publications on the part of Julio Palmaz. Palmaz circulated a 1980 monograph that he allegedly authored and slides of his alleged idea for a stent to various colleagues and businesses in the early 1980's, including, but not limited to, Stewart Reuter, Al Weinshelbaum, employees of Hancock/Vascor, and employees of Shiley. Palmaz also gave a presentation of his alleged idea for a stent in the form of a slide show at a November 1984 RSNA conference. Palmaz also disclosed his idea for the stent in various magazines, including, "Expandable Intraluminal Graft: A Preliminary Study," Radiology (July 1985); and "Expandable Intrahepatic Shunt Stents: Early Experience in the Dog," AJR (October 1985). Such disclosures teach to one of ordinary skill in the art all the limitations of all of the claims of the '762 Reexamination Certificate. Persons having knowledge related to this defense were disclosed during the depositions and testimony of the *Windeler*, *Cook*, and present litigations, and likely include Julio Palmaz, Stewart Reuter, Al Weinshelbaum, Louis Seiler, and David Lentz. Relevant documents include the Palmaz 1980 monograph, the slides Dr. Palmaz presented at the RSNA and to Hancock and Shiley, and the correspondence to and from Palmaz with Hancock/Vascor and Shiley that were produced by Cordis and EGP.

(17) Claims 14-34 and 51-59 of the '762 Reexamination Certificate are invalid under 35 U.S.C. § 102 in light of U.S. Patent No. 3,657,744 to Ersek. Ersek discloses to

one of ordinary skill in the art all of the limitations of at least claims 14-34 and 51-59 of the '762 Reexamination Certificate.

(18) All of the claims of the '762 Reexamination Certificate are invalid under 35 U.S.C. § 103 in light of the fact that the claimed combinations of the '762 Reexamination Certificate would have been obvious to the skilled artisan in view of the prior art. Such prior art includes the Palmaz abstract, Palmaz's prior disclosures, and Ersek. Other examples of prior art that may be relied upon to prove the claims obvious are the prior work of Dr. Cesare Gianturco on balloon expandable stents in the late 1970's and early 1980's, a Russian patent to Kononov (660689) disclosing the use of a balloon to implant a graft, a patent to Lazarus (U.S. Pat. No. 4,787,899), and a series of patents and publications related to the use of balloons to implant biliary stents. Those with knowledge of Gianturco's work were identified during the discovery of the *JJIS v. Cook* litigation and include Sandra Gianturco and various Cook employees. Cordis was made aware of relevant documents to Gianturco's work during the *Cook* case. Other references and combinations may of course provide additional support for these obviousness defenses. Medtronic AVE expects its position on invalidity to become more clear and reserves the right to present additional or different theories as this case progresses through the expert discovery phase.

(19) All of the claims of the '332 patent are invalid under 35 U.S.C. § 102 in light of prior public disclosures of all of the claimed inventions by Palmaz and/or Schatz. In particular, EP 0 364 787 A1 to Richard Schatz teaches all of the claimed limitations of the '332 patent. Persons likely having knowledge related to this defense include Richard Schatz, Julio Palmaz, Ben Tobor, and Paul Coletti. Relevant documents include EP 0

364 787 A1, the '332 patent, the '984 patent, and the prosecution history of the '332 patent.

(20) All of the claims of the '332 patent are invalid under 35 U.S.C. § 103 in light of the fact that the claimed combinations of the patents would have been obvious to a skilled artisan in view of the prior art. As made known to Cordis during discovery (*see, e.g.*, Boston Scientific and ACS summary judgment motions on invalidity; 7/10/98 Pearle deposition), the claims of the '332 patent (as is the case with the '417 and '984 patents) are obvious in light of one or more of the following references: connected z stents (*see, e.g.*, articles and sample marked at 10/14-16/99 Palmaz depo.); the contemporaneous work of Rodney Woolf made known to Cordis during the Woolf-Schatz interference; various references disclosing the Palmaz wire mesh and tubular slotted stent; U.S. Patent No. 4,969,458 to Wiktor; and EP 0 364 787 A1 to Schatz. Other references and combinations may of course provide additional support for these obviousness defenses. Medtronic AVE expects its position to become more clear as this case progresses through the expert discovery phase.

(21) If Cordis's claim constructions are believed, all of the claims of the '332 patent are invalid for violating 35 U.S.C. § 112's written description requirement. The following are illustrative of the limitations having no written description support: coronary stent; at least three segments; generally tubular shape; plurality of openings forming a series of open and closed portions; a first connector; a second connector; whereby each of the segments may be displaced at an angle with respect to the longitudinal axis of an adjacent segment when the stent is delivered through a cued [sic] portion of the access or coronary arteries; articulate; and cylindrical element. Persons

likely having knowledge of this defense include Richard Schatz, Julio Palmaz, Ben Tobor, John Milnamow, and Joel Siegel. Relevant documents include the '332 patent, the '984 patent, and the prosecution history of the '332 patent.

Additional bases for the invalidity of the claims of the '762 Reexamination Certificate and '332 patent have been made known to Cordis during discovery. For instance, Medtronic AVE's amended answer and counterclaims filed in Civil Action 97-550-SLR (consolidated), along with Medtronic AVE's second amended and proposed third amended complaints filed in Civil Action No. 97-700 set forth many of Medtronic AVE's contentions regarding the validity of the patents. Much of the support for each of the invalidity contentions has also been made known to Cordis during discovery through, *inter alia*, the Palmaz, Schatz, Tobor, Lipow, Milnamow, Siegel, Pearle and Kula depositions.

Medtronic AVE expects that further support for the above-referenced defenses, along with additional invalidity defenses, will be developed upon close of fact discovery and further analysis of the evidence. Medtronic AVE also expects that its position with regard to these defenses and other defenses not specifically discussed above will be further clarified during expert discovery, and expressly reserves the right to modify or supplement the above defenses, and/or rely upon entirely new defenses at trial.

INTERROGATORY NO. 20:

State whether AVE has conducted or caused to be conducted any tests, experiments or evaluations directed at duplicating the features of or determining the operativeness of any prior art identified in response to Request Nos. 18 and 19, and, if so: (i) identify each and every person involved in designing or conducting each such test, experiment, or evaluation; (ii) state with particularity the results of each such test,

experiment, or evaluation; and (iii) identify all documents or other tangible things concerning or recording the results of each such test, experiment, or evaluation.

Objections to Interrogatory No. 20:

Medtronic AVE objects to this interrogatory as being oppressive and unduly burdensome for requesting identification of "each and every person," "stating with particularity the results of each test, experiment, or evaluation" and identifying "all documents or other tangible things."

Medtronic AVE further objects to this interrogatory being vague and ambiguous as to the meaning of "features" and "operativeness."

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory as seeking information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or equally available to both of the parties to this action.

Medtronic AVE further objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Response to Interrogatory No. 20:

Subject to and without waiving the objections, Medtronic AVE states that it has not conducted any tests, experiments or evaluations directed at duplicating the features of or determining the operativeness of any prior art identified in response to Interrogatory Nos. 18 and 19. If Medtronic AVE decides to rely upon such tests, experiments, or

evaluations at trial, appropriate disclosures will be made in accordance with the Federal Rules of Civil Procedure and any relevant court orders.

INTERROGATORY NO. 21:

State whether AVE contends that there was no long felt need for the claimed invention of the '332 patent and/or the '762 Reexamination Certificate, and, if the answer is anything but an unqualified no, for each claim of the '332 patent and/or the '762 Reexamination Certificate identify each document which AVE contends supports its contention that there was no such long felt need and identify each person who has knowledge supporting such contention.

Objections to Interrogatory No. 21:

Medtronic AVE objects to this interrogatory as being a contention interrogatory that is premature because discovery is not yet complete.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it requests information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

Medtronic AVE further objects to this interrogatory as being unduly burdensome, oppressive, and not calculated to lead to the discovery of admissible evidence to the extent it requires identification of "each" document and "each" person and requests information on claims not asserted against AVE.

Medtronic AVE further objects to this interrogatory as being vague and ambiguous because the phrase "the claimed invention of the '332 patent and/or the '762 Reexamination Certificate" includes numerous claims of differing scope.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory to the extent that its request for "each document" seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being premature as the burden of proving secondary considerations of nonobviousness is on Cordis, not Medtronic AVE. Cordis has yet to make any contentions regarding long-felt need.

Response to Interrogatory No. 21:

Subject to and without waiver of its general and specific objections, Medtronic AVE states that it is unaware of there being any long felt need for the subject matter defined by the claims of the '762 Reexamination Certificate and/or '332 patent.

However, because Cordis has the burden of presenting secondary considerations of nonobviousness at trial but has yet to present any contentions regarding such considerations, it is difficult for Medtronic AVE to disprove such a contention with supporting evidence. Until Cordis does so, Medtronic AVE reserves its right to respond more fully to this interrogatory.

Nevertheless, Medtronic AVE believes that such supporting evidence has likely been made known to Cordis through discovery.

INTERROGATORY NO. 22:

State whether AVE contends that the art failed to find solutions to the problem solved by the claimed invention of the '332 patent and/or the '762 Reexamination Certificate and, if the answer is anything but an unqualified no, for each claim of the '332 patent and/or the '762 Reexamination Certificate identify each document which AVE contends supports its contention and identify each person who has knowledge supporting such contention.

Objections to Interrogatory No. 22:

Medtronic AVE objects to this interrogatory as being a contention interrogatory that is premature as discovery is not yet complete.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it requests information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

Medtronic AVE further objects to this interrogatory as being oppressive, unduly burdensome, and not calculated to lead to the discovery of admissible evidence to the extent it requires identification of "each" document and "each" person and requests information on claims not asserted against Medtronic AVE.

Medtronic AVE further objects to this interrogatory to the extent that its request for "each document" seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from

discovery.

Medtronic AVE further objects to this interrogatory as being vague and ambiguous because the "problem" allegedly solved by the patents in suit has not been defined," and because the meaning of the phrase "the claimed invention of the '332 patent and/or the '762 Reexamination Certificate" is ambiguous as there are numerous claims of differing scope in these patents.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory on the grounds that the burden of proving secondary considerations of nonobviousness is on Cordis, not Medtronic AVE. Cordis has yet to make any contentions regarding the art failing to find solutions to the alleged problems allegedly solved by the '762 Reexamination Certificate and/or '332 patent.

Response to Interrogatory No. 22:

Subject to and without waiver of its general and specific objections, Medtronic AVE states that it presently believes that the prior art and the contemporaneous work of others did find solutions to the problems or needs discussed in the '762 Reexamination Certificate and/or '332 patent.

However, because Cordis has the burden of presenting secondary considerations of nonobviousness at trial but has yet to present any contentions regarding such considerations, it is difficult for Medtronic AVE to disprove such a contention with supporting evidence. For instance, Medtronic AVE does not know what "problems" were allegedly "solved" by the claimed invention of the '762 Reexamination Certificate and/or

'332 patent, and therefore cannot more precisely respond to this interrogatory. Until Cordis presents its contentions related to this issue, Medtronic AVE reserves its right to respond more fully to this interrogatory.

Nevertheless, Medtronic AVE believes that such supporting evidence has likely been made known to Cordis through discovery.

INTERROGATORY NO. 23:

State whether AVE contends that the claimed invention of the '332 patent and/or the '762 Reexamination Certificate did not meet with commercial success and, if the answer is anything but an unqualified no, for each claim of the '332 patent and/or the '762 Reexamination Certificate identify each document which AVE contends supports its contention and identify each person who has knowledge supporting such contention.

Objections to Interrogatory No. 23:

Medtronic AVE objects to this interrogatory as being a contention interrogatory that is premature as discovery is not yet complete.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it requests information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

Medtronic AVE further objects to this interrogatory as being unduly burdensome, oppressive, and not calculated to lead to the discovery of admissible evidence to the

extent it requires identification of "each" document and "each" person and requests information on claims not asserted against Medtronic AVE.

Medtronic AVE further objects to this interrogatory to the extent that its request for "each document" seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being vague and ambiguous as the phrase "the claimed invention of the '332 patent and/or the '762 Reexamination Certificate" includes numerous claims of differing scope.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory on the grounds that the burden of proving secondary considerations of nonobviousness is on Cordis, not Medtronic AVE. Cordis has yet to make any contentions regarding commercial success.

Response to Interrogatory No. 23:

Subject to and without waiving its general and specific objections; Medtronic AVE states that it presently believes that the claimed inventions of the enumerated patents did not meet with commercial success because, *inter alia*, Plaintiffs have not established a nexus between the claims of the '762 Reexamination Certificate and/or '332 patent and sales of its stents, and further because there were essentially no competitive products on the market in the United States until about the time this lawsuit began. This utter lack of commercial success is demonstrated, for example, by reference to foreign markets such as Europe, where the alleged commercial embodiments of the patents-in-

suit met with little, if any, success upon the introduction of competitive products, such as Medtronic AVE's.

However, because Cordis has the burden of presenting secondary considerations of nonobviousness at trial but has yet to present any contentions regarding such considerations, it is difficult for Medtronic AVE to disprove such a contention with supporting evidence. Until Cordis does so, Medtronic AVE reserves its right to respond more fully to this interrogatory.

Nevertheless, Medtronic AVE believes that such supporting evidence has likely been made known to Cordis through discovery.

INTERROGATORY NO. 24:

State whether AVE contends that there has been no recognition by the industry of the significance of the claimed invention of the '332 patent and/or the '762 Reexamination Certificate and, if the answer is anything but an unqualified no, for each claim of the '332 patent and/or the '762 Reexamination Certificate identify each document which AVE contends supports its contention and identify each person who has knowledge supporting such contention.

Objection to Interrogatory No. 24:

Medtronic AVE objects to this interrogatory as being a contention interrogatory that is premature as discovery is not yet complete.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it requests information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

Medtronic AVE further objects to this interrogatory as being unduly burdensome, oppressive, and not reasonably calculated to lead to the discovery of admissible evidence to the extent that it requires identification of "each" document and "each" person and requests information on claims not asserted against Medtronic AVE.

Medtronic AVE further objects to this interrogatory as being vague and ambiguous as the phrase "the claimed invention of the '332 patent and/or the '762 Reexamination Certificate" includes numerous claims of differing scope.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory to the extent that its request for "each document" seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory on the grounds that the burden of proving secondary considerations of nonobviousness is on Cordis, not Medtronic AVE. Cordis has yet to make any contentions regarding industry recognition of the '762 Reexamination Certificate and/or '332 patent. Until Cordis does so, Medtronic AVE reserves response on this issue.

Response to Interrogatory No. 24:

See Medtronic AVE's Response to Interrogatory No. 23 above, incorporated herein into this response. In addition, the disadvantages and drawbacks of the products allegedly covered by the enumerated patents have been widely known in the industry and by Cordis and Johnson & Johnson for years. Moreover, to the extent there has been any recognition by the industry of the inventors or any of Cordis' predecessors, it has not been related to any alleged invention of the patents-in-suit.

INTERROGATORY NO. 25:

State whether AVE contends that either the '332 patent and/or the '762 Reexamination Certificate were procured by any act of fraud or inequitable conduct before the United States Patent and Trademark Office or any other governmental office and, if so, identify all such alleged acts, identify all persons who AVE contends has knowledge of any such alleged act, and identify all documents concerning any such alleged act.

Objections to Interrogatory No. 25:

Medtronic AVE objects to this interrogatory as being a contention interrogatory that is premature as discovery is not yet complete.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it requests information that is not within the possession, custody, or control of Medtronic AVE, or

that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

Medtronic AVE also objects to this interrogatory as being overly broad, unduly burdensome, oppressive, and not reasonably calculated to lead to the discovery of admissible evidence to the extent it requires identification of "all such alleged acts," "all persons," and "all documents."

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory to the extent that its request for "all documents" seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Response to Interrogatory No. 25:

Subject to and without waiving its general and specific objections, Medtronic AVE states that it presently believes that the '332 patent and the '762 Reexamination Certificate were procured by fraud or inequitable conduct for at least the following reasons:

(1) During the reexamination proceedings for the '762 Reexamination Certificate, the patentees failed to disclose and/or cure various fraudulent acts and inequitable conduct violations occurring during the reexamination of U.S. Patent No. 4,733,665 (ending on January 11, 1994) ("the '665 reexamination"). Such acts and conduct include: those detailed in Cook's Memorandum In Support of Its Motion for Summary Judgment on Inequitable Conduct located at COOK 7699-7737; the submission of misleading samples to the Patent and Trademark Office ("PTO"), one of which was

purportedly made in accordance with the teachings of the Ersek patent; a failure to disclose to the PTO all of the circumstances influencing whether the struts of a stent made in accordance with the '665 and '762 patents twist when expanded; a failure to disclose to the PTO that the stents made in accordance with the '665 and '762 patents can be used as fixation devices for grafts; misleading the PTO as to the deliverability and balloon expandability of the device disclosed in U.S. Patent No. 3,657,744 to Ersek; failure to disclose to the PTO all of the circumstances influencing whether the ends of a stent flare upon expansion; a failure to disclose evidence inconsistent with representations to the PTO regarding twisting, flaring, and the smoothness of stents made in accordance with the teachings of the '665 and '762 patents; and a failure to disclose evidence inconsistent with representations made to the PTO regarding the dates of conception, diligence, and reduction to practice regarding Palmaz's stent work. Those misrepresentations, and the failure to disclose such acts, conduct, and information (regardless of whether inequitable conduct actually occurred during the '665 reexamination), results in a procurement of the '762 Reexamination Certificate through fraud and/or inequitable conduct. In addition, the fraud and/or inequitable conduct that occurred during the original and reexamination prosecutions of the '665 patent taints the '762 Reexamination Certificate and '332 patent, rendering them all unenforceable. Persons having knowledge of, and documents supporting these contentions have been made known to Cordis through discovery, particularly during the Palmaz, Tobor, and Milnamow depositions. Those persons who Medtronic AVE believes likely have the most detailed knowledge related to these contentions are Julio Palmaz, Ben Tobor, Jason

Lipow, Paul Coletti, John Milnamow, John Kula, Barry Chasnoff, Pamela Matthews, Michael Timmons, and John DiMatteo.

(2) The '762 Reexamination Certificate and/or its parent patent was procured through fraud and/or inequitable conduct due to the applicants intentionally concealing Julio Palmaz's abstract entitled, "Expandable Intraluminal Graft: A Preliminary Study," which was published by the RSNA at least as early as October of 1984, Persons having knowledge of this contention include John Milnamow, Joel Siegel, Ben Tobor, Michael Timmons. Documents supporting this contention have been made known to Cordis through discovery, particularly during the Palmaz, Milnamow, Siegel, Tobor, and RSNA (Betty Rohr) depositions.

(3) The '762 Reexamination Certificate and the '332 patent were procured through fraud and/or inequitable conduct due to a failure to name all of the true inventors of the patents. Those involved in the prosecution of the patents, including Palmaz, Schatz, and Tobor, knew that others should be named as inventors of the patents but yet deliberately and with an intent to deceive failed to take appropriate action. Particular bases for this contention are laid out in Medtronic AVE's answer to interrogatory number 19 above.

(4) The '762 Reexamination Certificate and/or '332 patent were procured through fraud and/or inequitable conduct due to the applicants intentionally concealing the best mode of practicing the invention that the inventor(s) had in mind. Support for this contention can be found in Medtronic AVE's answer to interrogatory number 19.

(5) The '332 patent was procured through fraud and/or inequitable conduct due to the applicant failing to disclose prior art articles related to connected z stents

and/or misrepresenting the true state of the prior art with respect to connecting grafts. Such prior art includes the connected z stent articles and the connected z stent sample marked as exhibits during the Palmaz deposition in this litigation. Persons having knowledge of this contention include Milnamow, Palmaz, Schatz, Siegel, Tobor, and Timmons. Documents supporting this contention have been made known to Cordis through discovery, particularly during the Palmaz, Schatz, and Tobor depositions, and during Schatz's testimony at the Preliminary Injunction hearing involving Cordis and ACS.

(6) The '332 patent was procured through fraud and/or inequitable conduct due to the applicant failing to cite with particularity (with an intent to deceive the PTO) all of the inequitable conduct allegations and the facts giving rise thereto referenced in this response and in Medtronic AVE's supplemental responses to Cordis's first set of interrogatories numbers 1-13. Persons having knowledge relevant to this defense likely include Julio Palmaz, Richard Schatz, Ben Tobor, John Milnamow, Joel Siegel, Paul Coletti, Michael Timmons, John DiMatteo, and Gregory Diskant. Documents relevant to this defense include the '332 patent, the prosecution history of the '332 patent, and other documents identified in response to this interrogatory and in response to interrogatory number 11 of Cordis's first set of interrogatories.

(7) The '332 patent was procured through fraud and/or inequitable conduct due to the applicant misrepresenting with an intent to mislead the propriety of combining teachings relating to balloon expandable stents with teachings relating to self-expanding stents. During the interference proceeding involving the application for the '332 patent, the applicant argued that the combination of balloon expandable art and self-expanding

art rendered the counts of the interference unpatentable. After the interference proceeding ended, the applicant argued that it was improper to combine the teachings of balloon expandable art and self-expanding art. Persons likely having knowledge related to this defense include Ben Tobor, John Milnamow, Joe Siegel, Julio Palmaz, Richard Schatz, Michael Timmons, John DiMatteo, and Gregory Diskant. Documents related to this defense include the '332 patent, the prosecution history of the '332 patent (including the art cited therein and the interference proceedings), and the prosecution history of the '417 patent.

(8) The '332 patent was procured through fraud and/or inequitable conduct due to the applicant misrepresenting with an intent to mislead the development of the alleged invention disclosed in the application for the '332 patent. In particular, applicants submitted a declaration during an interference proceeding involving the application for the '332 patent representing that extensive and ongoing activities involving the development of the connected stents of the '332 patent occurred from the summer of 1987 through 1988. Such a representation was made with full knowledge that little or no work was done at least for a portion of that time period. Persons likely having knowledge relevant to this defense include John Kula, Julio Palmaz, Richard Schatz, Ronald Sickles, Ben Tobor, Theodore Van Itallie, Michael Timmons, and John DiMatteo. Documents relevant to this defense primarily include those marked at the portion of the Kula deposition that took place in November, 1999.

(9) The '332 patent was procured through fraud and/or inequitable conduct, and/or is unenforceable under the doctrine of unclean hands due to the applicants drafting certain of the claims (at least claims 1-10) of the patent using information designated as

confidential and/or highly confidential by Medtronic AVE and by providing information designated as confidential and/or highly confidential by Medtronic AVE to at least Mr. Joel Siegel (one of the prosecuting attorneys for the '332 patent). The material designated as confidential and/or highly confidential includes Medtronic AVE's motion for summary judgment of non-infringement filed in this action on August 27, 1998, and all concurrently and subsequently filed papers associated therewith. Such use of information violates the protective order in this action signed by Judge Robinson on August 31, 1999, as well as the interim protective order the parties previously were operating under, as well as Delaware Local Rule 26.2. Persons having knowledge related to this defense include Joel Siegel, and also likely include Michael Timmons, John DiMatteo, John Milnamow, and Paul Coletti. Documents related to this defense include the Medtronic AVE motion for summary judgement and associated papers, the '332 patent, and the '332 patent's prosecution history.

(10) The '332 patent was procured through fraud and/or inequitable conduct due to applicants failing to inform the examiner with an intent to deceive of the prior art status and disclosures of the '417 patent. Persons with the most knowledge related to this defense likely include Paul Coletti, John DiMatteo, John Milnamow, Joel Siegel, Michael Timmons, and Ben Tobor. Documents supporting this defense include the '332 patent, the '417 patent, and the '332 patent's prosecution history (including the interference).

Additional bases for alleging acts of fraud and/or inequitable conduct have been made known to Cordis during discovery. For instance, Medtronic AVE's amended answer and counterclaims filed in Civil Action 97-550-SLR (consolidated), along with Medtronic AVE's second amended and proposed third amended complaints filed in Civil

Action No. 97-700 set forth many of Medtronic AVE's contentions regarding fraud and/or inequitable conduct occurring during the procurement of the patents. Much of the support for each of the fraud and/or inequitable conduct contentions has also been made known to Cordis during discovery through, *inter alia*, the Palmaz, Schatz, Tobor, Lipow, Milnamow, Kula, and Siegel depositions.

Medtronic AVE expects that further support for the above-referenced defenses, along with additional fraud and/or inequitable conduct defenses, could be developed upon close of fact discovery and further analysis of the evidence. Medtronic AVE also expects that its position with regard to these defenses will be further clarified, and additional positions developed prior to the close of discovery and/or during expert discovery.

INTERROGATORY NO. 26:

Identify every person who AVE expects to testify on its behalf at trial, state the subject matter on which the person is expected to testify, and, if the person's expert testimony is to be offered, state the substance of the facts and opinions to which the person is expected to testify and a summary of the grounds for each opinion.

Objections to Interrogatory No. 26:

Medtronic AVE objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though factual and expert discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Response to Interrogatory No. 26:

Counsel for Medtronic AVE will arrange with counsel for Plaintiff an appropriate exchange of expected trial witnesses in due course.

INTERROGATORY NO. 27:

Identify all persons who were consulted or who supplied information used to respond to the foregoing discovery requests and identify each discovery request for which each such person supplied information or was consulted.

Objections to Interrogatory No. 27:

Medtronic AVE objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory as being unduly burdensome, oppressive, and not reasonably calculated to lead to the discovery of admissible evidence to the extent that it requires identification of "all" persons who were "consulted."

Medtronic AVE further objects to Plaintiff's interrogatories to the extent that they seek discovery of information that is available through other means that are less burdensome or more appropriate than through these interrogatories, such as through depositions.

Response to Interrogatory No. 27:

Subject to and without waiving its general and specific objections, Medtronic AVE identifies its outside trial counsel and in-house patent counsel Richard L. Klein.

As to Objections:

CONNOLLY, BOVE, LODGE & HUTZ

Patricia Smink Rogowski
Delaware Bar I.D. No. 2632
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D. Michael Underhill
Richard S. Meyer
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MORGAN, LEWIS & BOCKIUS LLP
1800 M Street, N.W.
Washington, D.C. 20036
(202) 467-7751

Date: December 9, 1999

CERTIFICATE OF SERVICE

I hereby certify that on December 9, 1999, I caused a copy of **DEFENDANT MEDTRONIC AVE, INC.'S OBJECTIONS AND RESPONSES TO PLAINTIFF'S THIRD SET OF INTERROGATORIES NOS. 16-27** to be served on each of the counsel of record listed below in the following manner:

By facsimile and federal express:

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1500 NationsBank Plaza
300 Convent Street
San Antonio, TX 78205

Eric J. Maurer

VERIFICATION

I declare under penalty of perjury that I am Patent Counsel for Medtronic AVE, Inc; that I am signing the foregoing Objections and Responses of Medtronic AVE to Plaintiff's Third Set of Interrogatories (Responses) for and on behalf of Medtronic AVE, and that I am duly authorized to do so; that all of the matters stated in the foregoing Responses may not be within my personal knowledge, but are based upon the company's records and that the facts stated in these Responses are true and correct to the best of my knowledge, information and belief as of the date below.

MEDTRONIC AVE, INC.

DEC. 9, 1999
Date

By: Richard L. Klein
3576 Unocal Place
Santa Rosa, California 95403
(707) 541-2250

Date: December 9, 1999

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CORDIS CORPORATION, Plaintiffs, v. ADVANCED CARDIOVASCULAR SYSTEMS, INC., GUIDANT CORPORATION, MEDTRONIC AVE, INC., BOSTON SCIENTIFIC CORPORATION, and SCIMED LIFE SYSTEMS, INC., Defendants.	)	Civil Action No. 97-550-SLR (Consolidated)

DEFENDANT MEDTRONIC AVE, INC.'S FIRST AMENDED OBJECTIONS AND SUPPLEMENTAL RESPONSES TO PLAINTIFF'S FIRST SET OF INTERROGATORIES NOS. 1-13

Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure, Defendant Medtronic AVE, Inc. ("Medtronic AVE") serves its first amended objections and supplemental responses to Plaintiff's First Set of Interrogatories to Medtronic AVE Nos. 1-13. In responding to Plaintiff's interrogatories, Medtronic AVE has incorporated the amendments requested by Cordis Corporation ("Cordis") in Scott B. Howard's March 26, 1998 letter to William E. Wallace, III.

Medtronic AVE objects to each interrogatory on all of the grounds set forth in its General Objections and Objections to Defendants' Definitions and Instructions and incorporates those objections into its specific objections to each interrogatory as if set forth in full therein. By answering Defendants' interrogatories Medtronic AVE does not waive any objections it may have that the information requested is not relevant or

inadmissible at trial in this action, and expressly reserves the right to assert those objections.

The following supplemental responses are based upon Medtronic AVE's current knowledge, information and belief after making reasonable inquiry. Medtronic AVE expressly reserves the right to supplement its responses to Defendants' interrogatories as additional evidence pertinent to this action becomes available.

GENERAL OBJECTIONS

1. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they attempt to impose obligations beyond those imposed by the Federal Rules of Civil Procedure or by the Local Rules of the U.S. District Court for the District of Delaware and may contravene orders of the Court.

2. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they call for information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery. Inadvertent disclosure of such information shall not constitute a waiver of any privilege, or of any other basis for objecting to discovery, or of the right of Medtronic AVE to object to the use, and seek the return, of any such information that may be inadvertently disclosed.

3. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they request information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

4. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they seek discovery of information that is available through other means that are less burdensome or more appropriate than through these interrogatories, such as through expert witnesses.

5. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they seek to compel Medtronic AVE to disclose trade secrets or any other proprietary or confidential information regarding Medtronic AVE or its products, including information not relevant to this action, including new products under development and the design, development, fabrication and operation of tooling and manufacturing equipment used to make AVE products.

6. Medtronic AVE generally objects to Plaintiff's interrogatories as vague, overly broad, oppressive and unduly burdensome.

7. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they incorporate, and seek responses based on, erroneous statements of pertinent law, and any response is not to be construed as agreement with Plaintiff's erroneous statements of pertinent law.

8. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they seek information that is not relevant to the subject matter of this litigation and that is not reasonably calculated to lead to the discovery of admissible evidence.

9. Medtronic AVE generally objects to Plaintiff's interrogatories to the extent that they exceed the number permitted under Rule 26 of the Federal Rules of Civil Procedure and Rule 26 of the Local Rules of the U.S. District Court of the District of Delaware.

10. Medtronic AVE generally objects to Plaintiff's document requests on the grounds that they are not limited to any period in time.

OBJECTIONS TO PLAINTIFF'S DEFINITIONS AND INSTRUCTIONS

1. Medtronic AVE objects to Plaintiff's instruction number 4 to the extent that it seeks to compel Medtronic AVE to produce information that is not within the possession, custody, or control of Medtronic AVE.

2. Medtronic AVE objects to Plaintiff's instruction number 5 to the extent that it seeks to require Medtronic AVE to produce an updated privilege log at this time. A supplemental privilege log will be provided in due course upon agreement of counsel.

AMENDED OBJECTIONS AND SUPPLEMENTAL RESPONSES

INTERROGATORY NO. 1:

Identify each and every person who participated in or was consulted with respect to the design, research, development, manufacture, quality control, regulatory approval, testing, clinical trials, marketing, promotion, advertising or sales of the Micro Stent II, GFX, and Bridge stents, and the role of each such person.

Amended Objections to Interrogatory No. 1:

Medtronic AVE objects to this interrogatory as being overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence to the extent that it requires identification of "each and every person" and includes within its scope persons who may have been "consulted." Almost every single employee of Medtronic AVE has participated in some fashion in one of the activities listed above regarding the Micro Stent II, GFX, or Bridge stents.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory as vague and ambiguous because Plaintiff has failed to define "role."

Supplemental Response to Interrogatory No. 1:

Subject to and without waiving its general and specific objections, Medtronic AVE has produced organizational charts and/or other documents from which the answer to this interrogatory may be ascertained. Notwithstanding, Medtronic AVE further identifies the persons knowledgeable about the following subjects concerning the Micro Stent II, GFX, and Bridge stents:

Matthew Birdsall, Senior Manager, Research & Development: design, research, development, testing.

Mark Brister, Vice President, Research & Development: design, research, development, testing.

Glenn Foley, Vice President, Global Sales: marketing, promotion, advertising, sales.

Bradly Jendersee, former Chairman and CEO: design, research, development, testing, sales.

Robert Lashinski, former Vice President, Research & Development: design, research, development, testing.

Paul Meyer, Manufacturing Engineer, Peripherals: regulatory approval, manufacture.

Geoff Orth, Business Unit Manager, Peripherals: design, research, development, testing, marketing, promotion, sales.

Azin Parhizgar, Vice President, Quality Assurance, Regulatory & ClinicalAffairs: clinical trials, quality control, testing.

David Rardin, Director of Global Marketing: marketing, promotion, advertising, sales.

Andrew Rasdal, Vice President and General Manager, Coronary Unit: marketing, promotion, advertising, sales.

John Shanahan: design, development, manufacture.

Scott Solano, President: marketing, promotion, advertising, sales.

Tom Wilder, Vice President, Finance: sales.

Other persons participating in or consulted with respect to the Micro Stent II, GFX, and Bridge stents have been made known to Cordis during discovery.

INTERROGATORY NO. 2:

State whether AVE contends that its Micro Stent II, GFX, and Bridge stents are superior to any stent commercially available in the United States (including but not limited to the Palmaz, Palmaz-Schatz, Wiktor, Multi-Link, Gianturco-Rubin and Gianturco-Rubin II stents) and if so, state with particularity the basis for such contention, including but not limited to all evidence supporting such contention.

Amended Objections to Interrogatory No. 2:

Medtronic AVE objects to this contention interrogatory as being premature as discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete. Medtronic AVE further objects to this interrogatory as being overly broad and unduly oppressive for seeking "all evidence supporting such contention."

Medtronic AVE further objects to this interrogatory as calling for information more appropriately obtained through other types of discovery, such as expert testimony and depositions.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Supplemental Response to Interrogatory No. 2:

Subject to and without waiving its general and specific objections, Medtronic AVE states that it believes its Micro Stent II, GFX, and Bridge stent delivery systems are at present superior to other stent delivery systems commercially available in the United States. Medtronic AVE expects that the basis for these facts will be developed during

discovery, and nearly every document that has been and will be produced by Medtronic AVE supports these facts. Medtronic AVE presently believes that its stent delivery systems are superior due to its unique, patented design that strikes an elegant balance between deliverability, adherence of the stent to the delivery catheter, visibility, lesion coverage, flexibility, and radial strength. In general, these features enable Medtronic AVE's stent delivery systems to perform better than other commercially available stents in the United States and/or to treat lesions that are not treatable with other stent products. Medtronic AVE bases these contentions on, among other things, objective evidence of physician use and preference, including but not limited to compassionate use of Medtronic AVE stent products during clinical trials, sales results of Micro Stent II, GFX, and Bridge stent delivery systems, and expansion of the stent delivery system market.

Other evidence supporting these contentions has been made known to Cordis during discovery or has been produced by Cordis during discovery. For instance, the document bates labeled COR251523-251555 supports Medtronic AVE's contentions, as do many other documents produced by Cordis related to "Project Galaxy." Medtronic AVE also expects that the subject matter of this interrogatory will be addressed through expert opinions and testimony, which will be disclosed in accordance with the Federal Rules of Civil Procedure.

INTERROGATORY NO. 3:

State whether AVE has conducted or caused to be conducted any search or investigation to locate prior art pertinent to the '762, '417 and/or '984 patents and, if so: (i) state when and by whom each search or investigation was made and at whose request; (ii) identify each patent, printed publication or other prior art reference or device which

AVE contends is pertinent to the '762, '417 and/or '984 patents; and (iii) identify all documents prepared by or for AVE concerning such prior art.

Amended Objections to Interrogatory No. 3:

Medtronic AVE objects to this interrogatory as being overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence for seeking information about "each search or investigation," "each patent", and "all documents" concerning prior art for the '762, '417, and/or '984 patents.

Medtronic AVE further objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Supplemental Response to Interrogatory No. 3:

Subject to and without waiving its general and specific objections, Medtronic AVE states that, to the best of its current knowledge, information and belief, it has not caused to be conducted searches and/or investigations to locate pertinent prior art specific to the '762, '417 and/or '984 patents prior to the filing of this action, *Cordis v. ACS et al.* (Civil Action No. 97-550-SLR).

All pertinent prior art known to Medtronic AVE has either been produced by Medtronic AVE or will be produced by Medtronic AVE; has been cited during the prosecution of the '762, '417, or '984 patents; or has been identified by Medtronic AVE, Advanced Cardiovascular Systems, Inc., or Boston Scientific Corporation, during

discovery. If Medtronic AVE becomes aware of any more pertinent prior art, it will identify such prior art in a timely manner in accordance with 35 U.S.C. § 282.

INTERROGATORY NO. 4:

State whether Medtronic AVE has ever requested an opinion or report from anyone, including but not limited to outside counsel, regarding either the validity or enforceability of the '762, '417 and/or '984 patents or the infringement of the '762, '417, and/or '984 patents by the Micro Stent II, GFX, and Bridge stents and, if so, identify every document concerning such opinions or reports, including but not limited to such opinions, reports and requests.

Amended Objections to Interrogatory No. 4:

Medtronic AVE objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for trial is not yet complete.

Medtronic AVE further objects to this interrogatory as seeking information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Supplemental Response to Interrogatory No. 4:

Subject to and without waiving its general and specific objections, Medtronic AVE has requested opinions and/or reports regarding the validity, enforceability, and/or the infringement of the '762, '417, and/or '984 patents. Documents concerning such

opinions or reports have either been produced, identified on Medtronic AVE's privilege log, and/or will be included on Medtronic AVE's supplemental privilege log.

INTERROGATORY NO. 5:

State whether Medtronic AVE contends that any claim of the '762, '417 and/or '984 patents is invalid, and, if so, state with particularity the basis for such contention, including but not limited to identifying with particularity each event or reference forming in whole or in part the basis for such contention, each person with knowledge of the event or reference, and all documents relating to the event or reference.

Amended Objections to Interrogatory No. 5:

Medtronic AVE objects to this interrogatory as being overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence to the extent it purports to require identification of "each event or reference" and "each person" with knowledge of the event of reference and "all documents" relating to it.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Supplemental Response to Interrogatory No. 5:

Subject to and without waiving its general and specific objections, Medtronic AVE presently contends that the asserted claims of the '762, '417, and '984 patents are invalid for at least the following reasons:

(1) All of the claims of the '762 and '417 patents are invalid for nonjoinder of inventorship. Stewart Windeler is at least a coinventor of these two patents, as he helped Palmaz develop the idea for forming slots in a tube. Those with knowledge of Mr. Windeler's contributions include Julio Palmaz, Stewart Reuter, and Joseph Peters. Others likely having knowledge are identified during the testimonies of Drs. Windeler and Palmaz during the *Windeler v. Palmaz* and *JJIS v. Cook* litigations, and include Dr. Windeler's coworkers and colleagues at the UTHSC from the mid-1980's and employees of Cook Inc. in contact with both Palmaz and Windeler in the mid-1980's. Documents related to this contention were made known to Cordis through the present and prior litigations, including the *Windeler v. Palmaz* and *JJIS v. Cook* litigations, and particularly during the testimonies of Drs. Palmaz and Windeler.

(2) All of the claims of the '762 and '417 patents are invalid for nonjoinder of inventorship. Werner Schulz is at least a coinventor of these two patents, as he in the spring of 1983 helped Palmaz develop the idea for forming slots in a tube. Those with knowledge that support Mr. Schulz's contribution include Julio Palmaz, Amalia Palmaz, Joseph Peters, Stanley Carson, and Brian Bates. Documents supporting this contention, all of which were produced by Cordis or EGP, include a May of 1983 letter from Palmaz to Schulz produced by Cordis and EGP, Palmaz's 1980 and 1983 monographs, a

chronology prepared by Lisa Wehlend (J051438A), and a timeline shown during the *Windeler v. Palmaz* trial (*see* Wehlend Exs. 1 and 2 from the 10/21/99 Wehlend depo.).

(3) All of the claims of the '762 and '417 patents are invalid for nonjoinder of inventorship. Stanley Carson is at least a coinventor of these two patents. During the 1979 time period, Dr. Carson gave Palmaz the idea for mounting and delivering a woven wire stent on a balloon catheter intraluminally to the point of a stenosis in an artery. The idea that Carson relayed to Palmaz included expanding the woven wire stent with the balloon so that the woven wire expanded the lumen of the artery. After deflating and removing the balloon, the woven wire stent would remain in place in its expanded condition. Those likely having knowledge of Dr. Carson's contributions were identified during Dr. Carson's deposition in the *JJIS v. Cook* case, and include Julio Palmaz; Stewart Reuter; Amalia Palmaz; Dr. Carson's coworkers and colleagues at the VA in Martinez, CA from the late 1970's and early 1980's; Dr. Carson's coworkers and colleagues at UC Davis, CA from the late 1970's and the early 1980's; Dr. Carson's research colleagues from the late 1970's and the early 1980's; persons working at Hancock and Vascor in the late 1970's and early 1980's; and persons working at Shiley during the late 1970's and early 1980's. Documents relating to Dr. Carson's claims of inventorship include those documents that were attached to Dr. Carson's affidavit from the *JJIS v. Cook* case, and other documents identified during the Carson and Palmaz depositions in the *JJIS v. Cook* and *Cordis v. ACS et al.* (Palmaz only) cases.

(4) The '417 and '984 patents are invalid for nonjoinder of inventorship. Cordis engineers, including Anthony Miksza, John Kula, Michael Schuler, and/or Ronald Sickles should have been named at least coinventor(s) of the patents, as they contributed

to the design of the connectors and connected stents claimed in the patents. Additionally, Julio Palmaz should have at least been named a coinventor of the '984 patent. Persons with knowledge related to these contentions, besides those named above, include Richard Schatz, Ben Tobor, and Michael Tatlow. Others likely having knowledge were identified in prior depositions in the *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to these contentions include those identified in various depositions in the *Cook* case and the present case, and have been produced by Cordis and EGP. Examples are Exs. 130 and 153 from the 10/14/99 and 10/15/99 Palmaz depositions.

(5) All of the claims of the '762, '417, and '984 patents are invalid for violating 35 U.S.C. § 112's best mode requirement. Palmaz and Schatz intentionally failed to disclose to the public that the claimed inventions should be made using an EDM machine. Those having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Stewart Windeler, John Kula, and Richard Bowman. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz, JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler, Cook,* and present case.

(6) All of the claims of the '762, '417, and '984 patents are invalid for violating 35 U.S.C. § 112's best mode requirement. Palmaz and Schatz intentionally failed to disclose to the public that the claimed inventions should be electropolished. Those having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Stewart Windeler, John Kula, and Richard Bowman. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v.*

Palmaz, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(7) All of the claims of the '762, '417, and '984 patents are invalid for violating 35 U.S.C. § 112's best mode requirement. Palmaz and Schatz intentionally failed to disclose to the public that the claimed inventions should be annealed. Those having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Stewart Windeler, John Kula, and Richard Bowman. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(8) All of the claims of the '762, '417, and '984 patents are invalid for violating 35 U.S.C. § 112's best mode requirement. Palmaz and Schatz intentionally failed to disclose to the public the dimensions needed for their stents to properly function. Those likely having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Stewart Windeler, John Kula, and Richard Bowman. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(9) All of the claims of the '762, '417, and '984 patents are invalid for violating 35 U.S.C. § 112's best mode requirement. Palmaz and Schatz intentionally

failed to disclose to the public the proper dimensions, stent preparation, and/or expansion limits needed to prevent the struts of the stents from twisting, and the ends of the stent from flaring. Those likely having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, Stewart Windeler, John Kula, Richard Bowman, and Fermin Tio. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(10) All of the claims of the '762, '417, and '984 patents are invalid for violating 35 U.S.C. § 112's enablement requirement. One of ordinary skill in the art would be unable to practice the claimed inventions without undue experimentation due to the difficulty in developing an adequate delivery system to properly deliver the claimed stent/graft/prosthesis. Those likely having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Phillip Romano, Cecil Schenker, John Kula, Anthony Miksza, Michael Schuler, and Ronald Sickles. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz*, *JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case.

(11) All of the claims of the '762, '417, and '984 patents are invalid for violating 35 U.S.C. § 112's enablement requirement. One of ordinary skill in the art would be unable to practice the claimed inventions without undue experimentation due to the difficulty in making the claimed stent/graft/prosthesis. Those likely having knowledge related to this validity defense include Richard Bowman, Julio Palmaz,

Richard Schatz, Phillip Romano, Cecil Schenker, John Kula, Anthony Miksza, Michael Schuler, and Ronald Sickles. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz, JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler, Cook,* and present case, including the April 20, 1999, Kula deposition.

(12) All of the claims of the '762 patent are invalid for violating 35 U.S.C. § 112's enablement requirement. One of ordinary skill in the art would be unable to practice the claimed inventions without undue experimentation due to the rigidity of the disclosed stent/graft/prosthesis. Such rigidity would preclude adequate delivery to many vessels of the body, and in particular the coronary arteries. Hence, at a minimum claims 44 through 59 are not enabled due to the limitations contained in those claims related to the coronary artery. Those likely having knowledge related to this validity defense include Julio Palmaz and Richard Schatz. Others having knowledge were identified in prior depositions and testimonies in the *Windeler v. Palmaz, JJIS v. Cook* and *Cordis v. ACS et al.* cases. Documents related to this defense include those identified in various depositions and trial transcripts in the *Windeler, Cook,* and present case.

(13) All of the claims of the '762 patent are invalid for violating 35 U.S.C. § 112's written description requirement. The definitions of "slots," "ring portions," "peak portions," "valley portions," and "ring portions," proffered by Cordis are not supported by the original disclosure contained in U.S. Appl. No. 796,009. Those likely having knowledge related to this validity defense include Julio Palmaz, Richard Schatz, Ben Tobor, and John Milnamow. Documents related to this defense include those identified

in various depositions and trial transcripts in the *Windeler*, *Cook*, and present case. Documents of particular interest include the '762 patent, the '762 reexamination certificate, and the '762 patent's file history.

(14) All of the claims of the '762 patent are invalid for violating 35 U.S.C. § 305's requirement that the scope of a claim cannot be enlarged during a reexamination proceeding. Those likely having knowledge related to this defense include Julio Palmaz, Richard Schatz, Ben Tobor, and John Milnamow. Documents related to this defense include those identified at various depositions and trial transcripts in the *Cook*, *Windeler*, and present case. Documents of particular interest include the '762 patent, the '762 reexamination certificate, and the '762 patent's file history.

(15) All of the claims of the '762 patent are invalid under 35 U.S.C. § 102 in light of a Julio Palmaz abstract entitled, "Expandable Intraluminal Graft: A Preliminary Study," which was published at least as early as October 1984. The abstract on its face discloses to one of ordinary skill in the art all the limitations of all of the claims of the '762 patent. Persons having knowledge related to this defense include Julio Palmaz. Relevant documents include the abstract and the '762 patent.

(16) All of the claims of the '762 patent are invalid under 35 U.S.C. § 102 in light of a series of public disclosures, public uses, and/or publications on the part of Julio Palmaz. Palmaz circulated a 1980 monograph that he allegedly authored and slides of his alleged idea for a stent to various colleagues and businesses in the early 1980's, including, but not limited to, Stewart Reuter, Al Weinshelbaum, employees of Hancock/Vascor, and employees of Shiley. Palmaz also gave a presentation of his alleged idea for a stent in the form of a slide show at a November 1984 RSNA conference. Palmaz also disclosed his

idea for the stent in various magazines, including, "Expandable Intraluminal Graft: A Preliminary Study," Radiology (July 1985); and "Expandable Intrahepatic Shunt Stents: Early Experience in the Dog," AJR (October 1985). Such disclosures teach to one of ordinary skill in the art all the limitations of all of the claims of the '762 patent. Persons having knowledge related to this defense were disclosed during the depositions and testimony of the *Windeler*, *Cook*, and present litigations, and likely include Julio Palmaz, Stewart Reuter, Al Weinshelbaum, Louis Seiler, and David Lentz. Relevant documents include the Palmaz 1980 monograph, the slides Dr. Palmaz presented at the RSNA and to Hancock and Shiley, and the correspondence to and from Palmaz with Hancock/Vascor and Shiley that were produced by Cordis and EGP.

(17) Claims 14-34 and 51-59 of the '762 patent are invalid under 35 U.S.C. § 102 in light of U.S. Patent No. 3,657,744 to Ersek. Ersek discloses to one of ordinary skill in the art all of the limitations of at least claims 14-34 and 51-59 of the '762 patent.

(18) All of the claims of the '762 patent are invalid under 35 U.S.C. § 103 in light of the fact that the claimed combinations of the '762 patent would have been obvious to the skilled artisan in view of the prior art. Such prior art includes the Palmaz abstract, Palmaz's prior disclosures, and Ersek. Other examples of prior art that may be relied upon to prove the claims obvious are the prior work of Dr. Cesare Gianturco on balloon expandable stents in the late 1970's and early 1980's, a Russian patent to Kononov (660689) disclosing the use of a balloon to implant a graft, a patent to Lazarus (U.S. Pat. No. 4,787,899), and a series of patents and publications related to the use of balloons to implant biliary stents. Those with knowledge of Gianturco's work were identified during the discovery of the *JJIS v. Cook* litigation and include Sandra

Gianturco and various Cook employees. Cordis was made aware of relevant documents to Gianturco's work during the *Cook* case. Other references and combinations may of course provide additional support for these obviousness defenses. Medtronic AVE expects its position on invalidity to become more clear and reserves the right to present additional or different theories as this case progresses through the expert discovery phase.

(19) At least claims 1-5, 7, 17-18 of the '417 patent are invalid under 35 U.S.C. § 102 in light of U.S. Patent No. 4,969,458 to Wiktor. The Wiktor patent discloses ever limitation of these claims.

(20) All of the claims of the '417 and '984 patents are invalid under 35 U.S.C. § 103 in light of the fact that the claimed combinations of the patents would have been obvious to a skilled artisan in view of the prior art. As made known to Cordis during discovery (*see, e.g.*, Boston Scientific and ACS summary judgment motions on invalidity; 7/10/98 Pearle deposition), the claims of the '417 patent are obvious in light of various articles describing connected z stents (*see, e.g.*, articles marked at 10/14-16/99 Palmaz depo.), and various references disclosing the Palmaz wire mesh and tubular slotted stent. The claims of the '984 patent are obvious in light of the same prior art, in addition to the '417 patent and the Wiktor '458 patent. Other references and combinations may of course provide additional support for these obviousness defenses. Medtronic AVE expects its position to become more clear as this case progresses through the expert discovery phase.

Additional bases for the invalidity of the claims of the '762, '417, and '984 patents have been made known to Cordis during discovery. For instance, Medtronic AVE's amended answer and counterclaims filed in Civil Action 97-550-SLR (consolidated),

along with Medtronic AVE's second amended and proposed third amended complaints filed in Civil Action No. 97-700 set forth many of Medtronic AVE's contentions regarding the validity of the patents. Much of the support for each of the invalidity contentions has also been made known to Cordis during discovery through, *inter alia*, the Palmaz, Schatz, Tobor, Lipow, Milnamow, Pearle and Kula depositions.

Medtronic AVE expects that further support for the above-referenced defenses, along with additional invalidity defenses, will be developed upon close of fact discovery and further analysis of the evidence. Medtronic AVE also expects that its position with regard to these defenses and other defenses not specifically discussed above will be further clarified during expert discovery, and expressly reserves the right to modify or supplement the above defenses, and/or rely upon entirely new defenses at trial.

INTERROGATORY NO. 6:

State whether AVE has conducted or caused to be conducted any tests, experiments or evaluations directed at duplicating the features of or determining the operativeness of any prior art identified in response to Request Nos. 3 and 5, and if so: (i) identify each and every person involved in designing or conducting each such test, experiment, or evaluation; (ii) state with particularity the results of each test, experiment, or evaluation; and (iii) identify all documents or other tangible things concerning or recording the results of each such test, experiment, or evaluation.

Amended Objections to Interrogatory No. 6:

Medtronic AVE objects to this interrogatory as being oppressive and unduly burdensome for requesting identification of "each and every person," "stating with particularity the results of each test, experiment, or evaluation" and identifying "all documents or other tangible things."

Medtronic AVE further objects to this interrogatory being vague and ambiguous as to the meaning of "features" and "operativeness."

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory as seeking information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or equally available to both of the parties to this action.

Medtronic AVE further objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Supplemental Response to Interrogatory No. 6:

Subject to and without waiving the objections, Medtronic AVE states that it has not conducted any tests, experiments or evaluations directed at duplicating the features of or determining the operativeness of any prior art identified in response to Interrogatory Nos. 3 and 5. If Medtronic AVE decides to rely upon such tests, experiments, or evaluations at trial, appropriate disclosures will be made in accordance with the Federal Rules of Civil Procedure and any relevant court orders.

INTERROGATORY NO. 7:

State whether AVE contends that there was no long felt need for the claimed invention of the '762, '417 and/or '984 patents, and, if the answer is anything but an unqualified no, for each claim of the '762, '417 and/or '984 patents identify each document which AVE contends supports its contention that there was no such long felt need and identify each person who has knowledge supporting such contention.

Amended Objections to Interrogatory No. 7:

Medtronic AVE objects to this interrogatory as being a contention interrogatory that is premature because discovery is not yet complete.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it requests information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

Medtronic AVE further objects to this interrogatory as being unduly burdensome, oppressive, and not calculated to lead to the discovery of admissible evidence to the extent it requires identification of "each" document and "each" person and requests information on claims not asserted against AVE.

Medtronic AVE further objects to this interrogatory as being vague and ambiguous because the phrase "the claimed invention of the '762, '417 and/or '984 patents" includes numerous claims of differing scope.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory to the extent that its request for "each document" seeks information that is protected under the attorney-client

privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory on the grounds that the burden of proving secondary considerations of nonobviousness is on Cordis, not Medtronic AVE. Cordis has yet to make any contentions regarding long-felt need. Until Cordis does so, Medtronic AVE reserves response on this issue.

Supplemental Response to Interrogatory No. 7:

Subject to and without waiver of its general and specific objections, Medtronic AVE states that it is unaware of there being any long felt need for the subject matter defined by the claims of the '762, '417 and/or '984 patents.

However, because Cordis has the burden of presenting secondary considerations of nonobviousness at trial but has yet to present any contentions regarding such considerations, it is difficult for Medtronic AVE to disprove such a contention with supporting evidence. Until Cordis does so, Medtronic AVE reserves its response to this issue.

Nevertheless, Medtronic AVE believes that such supporting evidence has likely been made known to Cordis through discovery.

INTERROGATORY NO. 8:

State whether AVE contends that the art failed to find solutions to the problem solved by the claimed invention of the '762, '417 and/or '984 patents and, if the answer is anything but an unqualified no, for each claim of the '762, '417 and/or '984 patents identify each document which AVE contends supports its contention and identify each person who has knowledge supporting such contention.

Amended Objections to Interrogatory No. 8:

Medtronic AVE objects to this interrogatory as being a contention interrogatory that is premature as discovery is not yet complete.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it requests information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

Medtronic AVE further objects to this interrogatory as being oppressive, unduly burdensome, and not calculated to lead to the discovery of admissible evidence to the extent it requires identification of "each" document and "each" person and requests information on claims not asserted against Medtronic AVE.

Medtronic AVE further objects to this interrogatory to the extent that its request for "each document" seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being vague and ambiguous because the "problem" allegedly solved by the patents in suit has not been defined," and because the meaning of the phrase "the claimed invention of the '762, '417

and/or '984 patents" is ambiguous as there are numerous claims of differing scope in these patents.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory on the grounds that the burden of proving secondary considerations of nonobviousness is on Cordis, not Medtronic AVE. Cordis has yet to make any contentions regarding the art failing to find solutions to the alleged problems allegedly solved by the '762, '417 and/or '984 patents. Until Cordis does so, Medtronic AVE reserves response on this issue.

Supplemental Response to Interrogatory No. 8:

Subject to and without waiver of its general and specific objections, Medtronic AVE states that it presently believes that the prior art and the contemporaneous work of others did find solutions to the problems or needs discussed in the '762, '417, and/or '984 patents.

However, because Cordis has the burden of presenting secondary considerations of nonobviousness at trial but has yet to present any contentions regarding such considerations, it is difficult for Medtronic AVE to disprove such a contention with supporting evidence. For instance, Medtronic AVE does not know what "problems" were allegedly "solved" by the claimed invention of the '762, '417, and/or '984 patents, and therefore cannot more precisely respond to this interrogatory. Until Cordis presents its contentions related to this issue, Medtronic AVE reserves its response.

Nevertheless, Medtronic AVE believes that such supporting evidence has likely been made known to Cordis through discovery.

INTERROGATORY NO. 9:

State whether AVE contends that the claimed invention of the '762, '417 and/or '984 patents did not meet with commercial success and, if the answer is anything but an unqualified no, for each claim of the '762, '417 and/or '984 patents identify each document which AVE contends supports its contention and identify each person who has knowledge supporting such contention.

Amended Objections to Interrogatory No. 9:

Medtronic AVE objects to this interrogatory as being a contention interrogatory that is premature as discovery is not yet complete.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it requests information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

Medtronic AVE further objects to this interrogatory as being unduly burdensome, oppressive, and not calculated to lead to the discovery of admissible evidence to the extent it requires identification of "each" document and "each" person and requests information on claims not asserted against Medtronic AVE.

Medtronic AVE further objects to this interrogatory to the extent that its request for "each document" seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being vague and ambiguous as the phrase "the claimed invention of the '762, '417 and/or '984 patents" includes numerous claims of differing scope.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory on the grounds that the burden of proving secondary considerations of nonobviousness is on Cordis, not

Medtronic AVE. Cordis has yet to make any contentions regarding commercial success. Until Cordis does so, Medtronic AVE reserves response on this issue.

Supplemental Response to Interrogatory No. 9:

Subject to and without waiving its general and specific objections, Medtronic AVE states that it presently believes that the claimed inventions of the enumerated patents did not meet with commercial success because, *inter alia*, Plaintiffs have not established a nexus between the claims of the '762, '417, and '984 patents and sales of its stents, and further because there were essentially no competitive products on the market in the United States until about the time this lawsuit began. This utter lack of commercial success is demonstrated, for example, by reference to foreign markets such as Europe, where the alleged commercial embodiments of the patents-in-suit met with little, if any, success upon the introduction of competitive products, such as Medtronic AVE's.

However, because Cordis has the burden of presenting secondary considerations of nonobviousness at trial but has yet to present any contentions regarding such considerations, it is difficult for Medtronic AVE to disprove such a contention with supporting evidence. Until Cordis does so, Medtronic AVE reserves its response to this issue.

Nevertheless, Medtronic AVE believes that such supporting evidence has likely been made known to Cordis through discovery.

INTERROGATORY NO. 10:

State whether AVE contends that there has been no recognition by the industry of the significance of the claimed invention of the '762, '417, and/or '984 patents and, if the answer is anything but an unqualified no, for each claim of the '762, '417 and/or '984

patents identify each document which AVE contends supports its contention and identify each person who has knowledge supporting such contention.

Objection to Interrogatory No. 10:

Medtronic AVE objects to this interrogatory as being a contention interrogatory that is premature as discovery is not yet complete.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it requests information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

Medtronic AVE further objects to this interrogatory as being unduly burdensome, oppressive, and not reasonably calculated to lead to the discovery of admissible evidence to the extent that it requires identification of "each" document and "each" person and requests information on claims not asserted against Medtronic AVE.

Medtronic AVE further objects to this interrogatory as being vague and ambiguous as the phrase "the claimed invention of the '762, '417 and/or '984 patents" includes numerous claims of differing scope.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory to the extent that its request for "each document" seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory on the grounds that the burden of proving secondary considerations of nonobviousness is on Cordis, not Medtronic AVE. Cordis has yet to make any contentions regarding industry recognition of the '762, '417, and/or '984 patents. Until Cordis does so, Medtronic AVE reserves response on this issue.

Supplemental Response to Interrogatory No. 10:

See Medtronic AVE's Supplemental Response to Interrogatory No. 9 above. In addition, the disadvantages and drawbacks of the products allegedly covered by the enumerated patents have been widely known in the industry and by Cordis and Johnson & Johnson for years. Moreover, to the extent there has been any recognition by the industry of the inventors or any of Cordis' predecessors, it has not been related to any alleged invention of the patents-in-suit.

INTERROGATORY NO. 11:

State whether AVE contends that either the '762, '417 and/or '984 patents were procured by an act of fraud or inequitable conduct before the United States Patent and Trademark Office or any other governmental office and, if so, identify all such alleged acts, identify all persons who AVE contends have knowledge of any such alleged act, and identify all documents concerning any such alleged act.

Amended Objections to Interrogatory No. 11:

Medtronic AVE objects to this interrogatory as being a contention interrogatory that is premature as discovery is not yet complete.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the trial is not yet complete.

Medtronic AVE further objects to this interrogatory to the extent that it requests information that is not within the possession, custody, or control of Medtronic AVE, or that is publicly available and/or uniquely within the control of Plaintiff, or is equally available to both of the parties to this action.

Medtronic AVE also objects to this interrogatory as being overly broad, unduly burdensome, oppressive, and not reasonably calculated to lead to the discovery of admissible evidence to the extent it requires identification of "all such alleged acts," "all persons," and "all documents."

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory to the extent that its request for "all documents" seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Supplemental Response to Interrogatory No. 11:

Subject to and without waiving its general and specific objections, Medtronic AVE states that it presently believes that the enumerated patents were procured by fraud or inequitable conduct for at least the following reasons:

(1) During the reexamination proceedings for the '762 patent, the patentees failed to disclose and/or cure various fraudulent acts and inequitable conduct violations occurring during the reexamination of U.S. Patent No. 4,733,665 (ending on January 11, 1994). Such acts and conduct include: those detailed in Cook's Memorandum In Support of Its Motion for Summary Judgment on Inequitable Conduct located at COOK 7699-7737; the submission of misleading samples to the Patent and Trademark Office ("PTO"), one of which was purportedly made in accordance with the teachings of the Ersek patent; a failure to disclose to the PTO all of the circumstances influencing whether the struts of a stent made in accordance with the '665 patent twist when expanded; a failure to disclose to the PTO all of the circumstances influencing whether the ends of a stent flare upon expansion; a failure to disclose evidence inconsistent with representations to the PTO regarding twisting, flaring, and the smoothness of stents made in accordance with the teachings of the '665 patent; and a failure to disclose evidence inconsistent with representations made to the PTO regarding the dates of conception, diligence, and reduction to practice regarding Palmaz's stent work. The failure to disclose such inequitable conduct, and the acts in support thereof, result in a procurement of the '762 reexamination certificate through fraud and/or inequitable conduct. In addition, the fraud and/or inequitable conduct that occurred during the original and reexamination prosecutions of the '665 patent taints the '762, '417, and '984 patents, rendering them all

unenforceable. Persons having knowledge of, and documents supporting these contentions have been made known to Cordis through discovery, particularly during the Palmaz, Tobor, and Milnamow depositions. Those persons who Medtronic AVE believes likely have the most detailed knowledge related to these contentions are Julio Palmaz, Ben Tobor, Jason Lipow, Paul Coletti, John Milnamow, John Kula, Barry Chasnoff, Pamela Matthews, Michael Timmons, and John DiMatteo.

(2) The '762 patent and/or its parent patent was procured through fraud and/or inequitable conduct due to the applicants intentionally concealing Julio Palmaz's abstract entitled, "Expandable Intraluminal Graft: A Preliminary Study," which was published by the RSNA at least as early as October of 1984. Persons having knowledge of, and documents supporting this contention have been made known to Cordis through discovery, particularly during the Palmaz, Tobor, and Betty Rohr depositions.

(3) The '762, '417, and/or '984 patents were procured through fraud and/or inequitable conduct due to a failure to name all of the true inventors of the patents. Those involved in the prosecution of the patents, including Palmaz, Schatz, and Tobor, knew that others should be named as inventors of the patents but yet deliberately and with an intent to deceive failed to take appropriate action. Particular bases for this contention are laid out in Medtronic AVE's answer to interrogatory number 5 above.

(4) The '762, '417, and/or '984 patents were procured through fraud and/or inequitable conduct due to the applicants intentionally concealing the best mode of practicing the invention that the inventor(s) had in mind. Support for this contention can be found in Medtronic AVE's answer to interrogatory number 5.

(5) The '417 patent was procured through fraud and/or inequitable conduct due to the applicant failing to disclose U.S. Patent No. 4,969,458 to Wiktor with an intent to deceive the patent office. Persons having knowledge of, and documents supporting this contention have been made known to Cordis through discovery, particularly during the Tobor and Palmaz depositions.

(6) The '417 and '984 patents were procured through fraud and/or inequitable conduct due to the applicant failing to disclose prior art articles related to connected z stents and/or misrepresenting the true state of the prior art with respect to connecting grafts. Such prior art includes the connected z stent articles and the connected z stent sample marked as exhibits during the Palmaz deposition in this litigation. Persons having knowledge of, and documents supporting this contention have been made known to Cordis through discovery, particularly during the Palmaz, Schatz, and Tobor depositions, and during Schatz's testimony at the Preliminary Injunction hearing involving Cordis and ACS.

Additional bases for alleging acts of fraud and/or inequitable conduct have been made known to Cordis during discovery. For instance, Medtronic AVE's amended answer and counterclaims filed in Civil Action 97-550-SLR (consolidated), along with Medtronic AVE's second amended and proposed third amended complaints filed in Civil Action No. 97-700 set forth many of Medtronic AVE's contentions regarding fraud and/or inequitable conduct occurring during the procurement of the patents. Much of the support for each of the fraud and/or inequitable conduct contentions has also been made known to Cordis during discovery through, *inter alia*, the Palmaz, Schatz, Tobor, Lipow, Milnamow, and Kula depositions.

Medtronic AVE expects that further support for the above-referenced defenses, along with additional fraud and/or inequitable conduct defenses, could be developed upon close of fact discovery and further analysis of the evidence. Medtronic AVE also expects that its position with regard to these defenses will be further clarified, and additional positions developed prior to the close of discovery and/or during expert discovery.

INTERROGATORY NO. 12:

Identify every person who AVE expects to testify on its behalf in opposing Cordis' motion for a preliminary injunction, state the subject matter on which the person is expected to testify, and, if the person's expert testimony is to be offered, state the substance of the facts and opinions to which the person is expected to testify and a summary of the grounds for each opinion.

Amended Objections to Interrogatory No. 12:

Medtronic AVE objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being premature in that it seeks disclosure of positions that Medtronic AVE will take at the preliminary injunction hearing and/or at trial, even though discovery is not yet complete, the Court has not completed its construction of the claims of the patents in suit, and preparation for the hearing and/or trial is not yet complete.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Supplemental Response to Interrogatory No. 12:

This interrogatory is now moot.

INTERROGATORY NO. 13:

Identify all persons who were consulted or who supplied information used to respond to the foregoing discovery requests and identify each discovery request for which each such person supplied information or was consulted.

Amended Objections to Interrogatory No. 13:

Medtronic AVE objects to this interrogatory to the extent that it seeks information that is protected under the attorney-client privilege and/or the attorney work-product doctrine, or which is otherwise immune from discovery.

Medtronic AVE further objects to this interrogatory as being a multi-part interrogatory styled as a single-part interrogatory.

Medtronic AVE further objects to this interrogatory as being unduly burdensome, oppressive, and not reasonably calculated to lead to the discovery of admissible evidence to the extent that it requires identification of "all" persons who were "consulted."

Medtronic AVE further objects to Plaintiff's interrogatories to the extent that they seek discovery of information that is available through other means that are less burdensome or more appropriate than through these interrogatories, such as through depositions.

Supplemental Response to Interrogatory No. 13:

Subject to and without waiving its general and specific objections, Medtronic AVE identifies its outside trial counsel and in-house patent counsel Richard L. Klein, and with respect to Interrogatory No. 1, additionally identifies Matt Birdsall and Geoff Orth.

As to Objections:

CONNOLLY, BOVE, LODGE & HUTZ

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Date: November 15, 1999

CERTIFICATE OF SERVICE

I hereby certify that on November 15, 1999, I caused a copy of **DEFENDANT MEDTRONIC AVE, INC.'S FIRST AMENDED OBJECTIONS AND SUPPLEMENTAL RESPONSES TO PLAINTIFF'S FIRST SET OF INTERROGATORIES NOS. 1-13** to be served on each of the counsel of record listed below in the following manner:

By facsimile and federal express:

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Eric J. Maurer

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CORDIS CORPORATION and EXPANDABLE GRAFTS PARTNERSHIP, Plaintiffs, v. ADVANCED CARDIOVASCULAR SYSTEMS, INC., GUIDANT CORPORATION, MEDTRONIC AVE, INC., BOSTON SCIENTIFIC CORPORATION, and SCIMED LIFE SYSTEMS, INC., Defendants.	Civil Action No. 97-550-SLR (Consolidated)
MEDTRONIC AVE, INC., Plaintiff, v. CORDIS CORPORATION, JOHNSON & JOHNSON, and EXPANDABLE GRAFTS PARTNERSHIP, Defendant.	Civil Action No. 97-700-SLR

NOTICE OF SERVICE

PLEASE TAKE NOTICE that on the 15th day of November, a true and correct copy of **DEFENDANTS MEDTRONIC AVE, INC.'S FIRST AMENDED OBJECTIONS AND SUPPLEMENTAL RESPONSES TO PLAINTIFF'S FIRST SET OF INTERROGATORIES NOS. 1-13** was served upon the following counsel in the manner stated:

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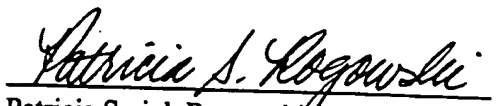

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CERTIFICATE OF SERVICE

I, Patricia S. Rogowski, hereby certify that on this 18th day of November, 1999, one copy of the foregoing Notice of Service was caused to be served upon the following counsel as stated:

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